

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in this application:

Listing of Claims

- 1-17. (Canceled)
18. (Currently amended) A computer-based system incorporating a classification tree model incorporating which incorporates Bayesian analysis for the statistical prediction of binary outcomes, wherein the tree model comprises one or more nodes representing metagenes predictive of lymph node metastasis, and one or more nodes representing clinical risk factors.
19. (Withdrawn) A computer readable medium having computer readable program codes embodied therein for predicting lymph node metastasis in an individual afflicted with breast cancer, the computer readable medium program codes performing functions comprising generating a prediction of lymph node metastasis from the classification tree model of claim 18.
20. (Withdrawn) The method of claim 19, wherein one of the metagenes is Mg20.
21. (Withdrawn) A method of predicting lymph node metastasis in an individual afflicted with breast cancer, by combining metagene expression data with clinical risk factors, the method comprising:
- (i) obtaining a nucleic sample from a tumor biopsy of the individual and generating an expression profile from the nucleic acid sample of at least two-genes whose expression is correlated with breast cancer recurrence; and
 - (ii) generating a prediction of lymph node metastasis from the classification tree model of claim 18.

22. **(Withdrawn)** The method of claim 21, wherein one of the metagenes is Mg20.
23. **(Withdrawn)** The method of claim 21, wherein the clinical risk factors are selected from auxiliary lymph node status, estrogen receptor (ER) status, tumor size and treatment factors.
24. **(New)** The computer-based system of claim 18, wherein said clinical risk factor is selected from lymph node status, patient age, hormone receptor status, tumor size, or a combination thereof.
25. **(New)** The computer-based system of claim 18, wherein said outcome is tumor recurrence.